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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/825,189

04/03/2001

Rami Verbin

U 013385-3

1692

7590

08/20/2004

Ladas & Parry  
26 West 61st Street  
New York, NY 10023

EXAMINER

DEPPE, BETSY LEE

ART UNIT

PAPER NUMBER

2637

DATE MAILED: 08/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<p>Application No.</p> <p align="center">09/825,189</p>	<p>Applicant(s)</p> <p align="center">VERBIN ET AL.</p>	
	<p>Examiner</p> <p align="center">Betsy L. Deppe</p>	<p>Art Unit</p> <p align="center">2637</p>	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-22 and 27-30 is/are allowed.
- 6) ☒ Claim(s) 1-15 and 23-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br/> Paper No(s)/Mail Date <u>June 11, 2001</u>.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)<br/> Paper No(s)/Mail Date. ____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: ____.</p> |
|---|---|

## DETAILED ACTION

### *Specification*

1. The status of the pending application on page 11 should be updated.

### *Claim Objections*

2. The claims are objected to because of the following informalities:

in claim 12, line 5, "response" should be "response **of the channel**" in order to be consistent with claim 12, line 2;

in claim 14, line 4, both occurrences of "the value" should be "the value **of the received signal**";

in claim 27, line 4, "response" should be "response **of the channel**";

in claim 29, line 5, "the value" should be "the value **of the received training signal**" (see claim 29, line 4);

in claim 30, line 3, "the filter" should be "the **adaptive digital** filter."

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 8-11 and 23-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. With regard to claims 8 and 23, the specification does not describe how to determine a level of attenuation to enable reliable detection of the training signal such that one skilled in the art can make and/or use the invention..

6. Claims 1-15 and 23-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. In claim 1, it is unclear "during a training interval of the communications" on lines 8-9 applies to the "providing" or to the "at least one segment" or both. I.e. is the definition itself provided during a training interval or does is the definition of the segment and the level of attenuation applied to the at least segment only during the training interval?

8. In claim 1, lines 10-12, it is unclear whether the transmitted training signal includes the applied "level of attenuation within the at least one segment." Based on the specification, it appears that the training signal is attenuated at the least one segment before it is transmitted. The Examiner suggests replacing lines 10-12 with the following:

"applying the level of attenuation within the at least one segment to a training signal and transmitting the attenuated training signal."

9. With regard to claims 8 and 23, it is unclear what constitutes "reliable detection" such that one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear defines a detection of a signal as being "reliable."

***Allowable Subject Matter***

10. Claims 16-22 and 27-30 are allowed.

11. Claims 1-15 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

12. Claims 23-26 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

13. The following is a statement of reasons for the indication of allowable subject matter: prior art of record does not teach or suggests in combination a communication method or apparatus comprised of compensating for a response of a communications channel based on (a) a received training signal and (b) a definition of at least a signal segment and of a level of attenuation to be applied to the at least one segment, wherein the defined signal segment and level of attenuation is applied to the training signal and the definition is provided to the receiver.

***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references disclose systems that estimate channel response using received training signals: Mourot et al. (US Patent No. 5,559,723), Goodson et al. (US Patent No. 5,636,244); Bjarnason et al. (US Patent No. 5,949,819); Wu (US Patent No. 6,219,378 B1) and Olafsson (US Patent No. 6,332,009 B2).

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsy L. Deppe whose telephone number is (703) 305-4960. The examiner can normally be reached on Monday, Wednesday and Thursday (8:30-4:00). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel, can be reached on (703) 308-7728.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
P.O. Box 1450  
Alexandria, VA 22313-1450

**or faxed to:** (703) 872-9306

Hand-delivered responses should be delivered to:

220 South 20<sup>th</sup> Street  
Crystal Plaza Two, Lobby, Room 1B03  
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Betsy L. Deppe  
Primary Examiner  
Art Unit 2637